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ABSTRACT

To illustrate the relevance of critical communication history and theory to media ethics, this paper examines a crucial episode in the history of public relations: the American electrical industry's cooperative advertising and public relations efforts in the 1920s to sell the "electrical idea" to consumers. The paper first enumerates some of the social, economic, and political consequences of electrification, such as strip-mining, pollution, and the near-complete dependence on electricity and electrical technology. The main body of the paper, "Selling the Electrical Idea in the 1920s" traces how electrical manufacturers, contractors, dealers, and utility companies--working through a network of 14 major national trade associations and hundreds of sectional, state, and local affiliates--produced advertisements, news stories, editorials, magazine features, speeches, exhibitions, films, radio programs, and window displays which fixed the "electrical idea" into public consciousness. The paper also examines trade association literature, technical publications, and corporate records revealing the factors which electrical leaders identified as constraints on the industry's expansion and, in turn, the advertising and public relations strategies which were formulated to eliminate those impediments. (Seven figures and 67 endnotes are included.) (SR)

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Selling the "Electrical Idea in the 1920s:A Case Study in the Manipulation of Consciousness

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Public relation's quest for professional recognition and correspondingly meaningful ethical standards, has, for the most part, remained unfulfilled. Part of the problem, says one commentator, has to do with the fact that "many view today's public relations person as nothing better than yesterday's publicity agent who is responsible for glossing over mistakes and errors, for concealing the negative and displaying only(the)positive." That negative stereotype, laments another observer, has been recapitulated in public relations histories and mass communications textbooks which portray the practitioner "as a posturing flack, deceiving, pushing, and employing techniques which 'run the gamut from handouts to junkets, from press conferences to bribes,' with one ultimate goal:'to control the content of the media.'" Given that situation, concludes Carolyn Cline, "It's time public relations cleaned up its image in the textbooks." [1]

Cline's call for a sanitized history of public relations may however, be as much of a disservice to mass media students as the negative textbook portrayals she so vigorously decries. In urging public relations to fashion an uncritical, "usable past," Cline's approach may thwart the efforts of communication educators concerned with instilling an awareness in students of the

ethical and moral issues bound up in the uneasy courtship between journalism and public relations.[2]

This paper examines a crucial episode in the history of public relations which illustrates the relevance of critical communication history and theory to media ethics.It does so by suggesting how public relations and advertising may have long-term social, political, economic, and technical effects both anticipated and unexpected.

Prologue

On November 9 1965 the biggest electrical power failure in history plunged nearly all of New York City, sections of nine Northeastern states, and two southeastern Canadian provinces into darkness for up thirteen hours. At 5:16 p.m. a single relay switch malfunctioned, eventually shutting down all five of the high-voltage transmission lines between Toronto and Ontario Hydro's Niagara Falls power plant. Massive overloading of the lines resulted, sending 1.5 million kilowatts of power across the border into the United States. As automatic safety switches in the interconnected power networks shut off current to deflect the surge, additional disruptions farther east and south resulted. By 5:28 p.m. more than 25 million people from Toronto to New York to Buffalo to Boston watched in disbelief as street lights and traffic signals flickered and went out; televisions went blank;telephone service was disrupted; and elevators, subways, and streetcars

abruptly ground to a halt. New York City's utility, Consolidated Edison, could not re-start its generators,because unlike its upstate counterparts, the company lacked hydroelectric facilities. Its generators needed electricity to operate. The firm's engineers and managers had never considered that all of the company's generators could fail at once.[3] Commenting on the blackout in its "day-after" editorial, the New York Times found it hard to comprehend why a single break at one point in an interconnected system compels a virtually complete suspension of service....beyond the dream of any saboteur." Saturday Review's science editor referred to the blackout as "the night when America's great mechanized society became unplugged." Newsweek said the blackout made people realize "how totally their lives are wired to electricity." And Theodore H. White, writing in Life,said that the blackout revealed that at Con Ed's Energy Control Center, "the feed from the grid, like so many modern miracles, had long since been taken for granted." [4]

Since the 1960s, several kinds of experience have informed growing doubts about the wisdom of taking our electric technology for granted.Concerns about the reliability of the nation's interconnected power grids have increased with the realization that electrical technology will continue to expand into the foreseeable future as the deployment of computer networks, satellite telecommunications, robots, high-technology manufacturing, and other electrically-based industrial

processes increases. Sophisticated home-entertainment systems; electronic banking, polling, and shopping;also underscore the ubiquity of electric technology in modern life.

But as demand for electric power increases, so have apprehensions about several unanticipated consequences of electrification and electronic technology. More than a century' reliance on fossil-fuel burning power plants has strip-mined the eastern landscape and polluted our air and water. Prospects too, once so bright and hopeful, for an expedient and safe nuclear alternative to fossil fuel combustion have faded in the wake of the accidents at Three Mile Island and Chernobyl.[5]

Uncertainties about the future of nuclear power, in turn, have burdened several utility companies with construction costs which many state public service commissions have been reluctant to pass on to ratepayers.Hence utility securities, long a mainstay of many a fiscal conservative's investment portfolio, are no longer guaranteeing steady dividends. The recent bankruptcy of the New Hampshire Public Service Company, brought on by the firm's inability to bear the costs of its idle Seabrook reactor, is a case in point. Further, the entry of non-utility producers of electricity into the marketplace has prompted utility executives and analysts to call for a radical restructuring of the industry that would increase competition through deregulation and allow utilities to diversify into other

enterprises along lines similar to those achieved in the telephone industry.[6]

In addition,questions about the social, economic, political, and epistemological consequences of the widespread use of computers and telecommunications; the practicality of "Star Wars," and after the Challenger disaster, future appropriations for the space program; highlight the indefensibility of taking electrical power and electronic communication systems for granted. [7]

Yet despite the complexity of the public policy issues intrinsic to our permanently "wired society," many scholars, commentators, policy analysts,advertisers and consumers continue to embrace an uncritical faith in electrical science and technology which James Carey and John Quirk have identified as the "mythos of the electronic revolution". Originating amid the introduction of the telegraph,telephone,and incandescent light in the second half of the nineteenth century--and continuing today to shape pronouncements of the arrival of the so-called "Information Age," the "mythos of the electronic revolution," observe Carey and Quirk, "displays a faith that electricity will exorcise social disorder and environmental disruption, eliminate political conflict and alienation, and restore ecological balance and a communion of man with nature." [8]

But that kind of technological utopianism, say Carey and Quirk, fosters unrealistic expectations about new electric technologies and masks the potential problems associated

with their widespread implementation. Calling then, for a demythologization of electric technology, Carey and Quirk suggest that that work examine how the theme of an electronic revolution has framed the deployment of electric science and technology in language that has, for the most part, served the political and economic imperatives of its most vocal proponents--the American electrical manufacturing and utility industries.[9]

This paper takes up that call by recovering a crucial episode in the history of the illusion of an electronic revolution--the American electrical industry's cooperative advertising and public relations efforts in the 1920s to sell the "electrical idea" to consumers.

This study shows how electrical manufacturers, contractors, dealers, and utility companies--working through a network of fourteen major national trade associations and hundreds of sectional, state, and local affiliates--produced advertisements, news stories, editorials, magazine features, textbooks, pamphlets, speeches, exhibitions, films, radio programs, and window displays which fixed the "electrical idea" into public consciousness.[10]

These are familiar themes in the fusion of literary criticism and historical analysis which unites participants in the American Studies movement. Scholars working within that tradition have long assumed that the content of mass cultural materials such as advertisements, newspapers, magazines, films,

and radio programs articulate the myths and symbols which shape social, economic, and political behavior. That assumption in turn, leads to the related notion that the content of mass cultural artifacts somehow reflects the beliefs, values, and expectations of their audiences.[11]

But critics of the so-called "mirror theory," such as Herbert Gans, warn "that the practice of inferring effects from content is not valid." Likewise,Bruce Kuklick, perhaps the harshest critic of the American Studies movement and its "preoccupation" with broadly defined concepts such as "popular consciousness" and "public mind," reminds us "that many people live in a country and that attribution of motives to all of them requires extensive evidence."[12]

Confronted with the possibility of multiple interpretations of mass cultural materials such as news or advertisements, their utility as historical documents may lie less in providing direct clues to popular beliefs, values, and expectations, and more in their ability to delineate the "frames" which proscribe the range of dialogue about social, political, economic, and technical issues.[13]

When seen as " media frames," involved in the "social construction of reality," advertisements and public relations materials, as Roland Marchand persuasively argues, may in fact exceed most other kinds of historical documents as a footing for credible judgments about prevalent beliefs and values in the past. Cognizant of the need of linking their promotional

messages with already existing audience beliefs and values,advertisers, Marchand emphasizes, "sought only to sound those notes that would evoke a positive resonance." [14]

The problem is not then, that the content of a specific advertisement or radio program cannot provide insights into the social, economic, and political milieu in which it was cast, but that by not linking the content of those texts with the managerial imperatives from which they derived, we may be missing an important part of the evidence. [15]

In the case of the American electrical industry in the 1920s, its trade association literature, technical publications, business texts, and corporate records provide that crucial link.These sources reveal the social, economic,technical, and political factors which electrical leaders identified as constraints on the industry's expansion, and in turn, the advertising and public relations strategies formulated to eliminate those impediments.[16]

Several factors prompted electrical leaders to mobilize the different branches of the industry to support its cooperative campaign to sell the "electrical idea" in the 1920s. With more than 60 per cent of American homes in 1920 lacking basic electric service--coincident with several utility companies holding excess generating capacity because of government-ordered interconnections to meet the energy needs of war-time production, industry spokespersons saw a need to stimulate demand for electric power and equipment. And pointing to a rising tide of

criticism of the utility industry's consolidation of control into giant holding companies, electrical leaders sought to thwart a progressive bloc in Congress calling for increased municipal control of local utility operating facilities and stronger federal and state regulation of rate-setting procedures and hydroelectric development.[17]

Given the task of encouraging electrification and private control and development of the nation's electric power resources,the advertising and public relations directors who coordinated the industry's promotional efforts, turned to an emerging body of academic and professional business thought which treated advertising, public relations, sales presentations, merchandising, and political lobbying as mutually interdependent and reciprocating market functions capable of promoting ideas in the same way that they promoted goods and services. [18]

Selling the "Electrical Idea" in the 1920s

In the years after World War I, the different branches of the American electrical industry launched an "educational campaign...directed toward a better understanding of the 'electrical idea' on the part of the public..." According to the trade journal Electrical Merchandising, improving public understanding of the "electrical idea" meant promoting "the good name of electricity" and "giving publicity generally to the great part electricity can and does play in the homes and

industries of the country." [19]

Selling the "electrical idea" meant emphasizing that the safety, comfort, convenience, and efficiency of electrical power and equipment meant material abundance and technological progress. Consumers, industry leaders emphasized, needed to be reminded that electricity pervaded the modern infrastructure, bringing light, heat, power, and communications into the home and workplace. In those terms,selling the "electrical idea" meant advertising and public relations concerned less with whose washing machine, percolator, or power, consumers purchased, and more with making sure that they appreciated the labor-saving advantages of electrical power and equipment.Electrical spokespersons suggested that if consumers appreciated how electricity could improve their lives, then perhaps they could be persuaded to accept the rationale for private control and development of the nation's electrical power resources. [20]

Consider Ernest Greenwood's 1928 "history" of electrical science and technology,Aladdin.U.S.A., as a point of entry into the kinds of evidence that inform this project. The book's introductory chapter asked readers to contemplate the consequences of a nationwide power failure. Describing the breakdown in communications, transportation, industry, government, and services such an event might launch, Greenwood concluded:"The sudden elimination of the kilowatt from the general scheme of things is indeed an indescribable catastrophe."

Greenwood emphasized that the grim scenario he had sketched

was "only a phantasy designed to dramatize the great part electricity plays in our daily lives." Assuring readers of the unlikelihood of such an occurrence, the author of Aladdin,U.S.A. pointed with confidence to the "Power Dispatcher....at his keyboards in a great network of transmission lines," commanding "brigades of benevolent kilowatts" on a "never-ending march of service to humanity."[21]

Unknown to readers,Greenwood had received $5,000 from the electric utilities to write the book, along with information on its views on electric power policy issues ranging from public ownership to conservation. The book's publication coincided with the onset of a series of Federal Trade Commission investigations of the electric utility industry between 1928 and 1934, into the records of which Greenwood's glowing prose was eventually entered as an exhibit. Producing more than 80 volumes of testimony and exhibits , the records of the FTC investigations extend the range of evidence from which to extract the managerial imperatives which guided the industry's efforts to promote the twin-gospel of electrical salvation and private ownership known in trade circles as the "electrical idea." [22]

During the 1920s the issues of public accountability in the electric utility industry and the need to develop a national power policy focused on the problem of what to do with the federally owned hydroelectric dam in the Tennessee Valley at Muscle Shoals, Alabama, which had been authorized by preparedness legislation in 1916 to provide power for munitions plants. After

the war several plans were proposed that would have turned the Shoals over to private industry. But despite the conservative cast and favorable disposition toward business and industry held by the Harding, Coolidge, And Hoover administrations, a small, progressive bloc in Congress led by Nebraska Senator George W. Norris blocked those efforts. Beginning in 1922 Norris introduced a series of bills for extensive federal development of the valley, but these were vetoed by Coolidge in 1928 and by Hoover in 1930. Norris' vision of a multi-purpose, regional flood-control and hydroelectric project eventually materialized as the Tennessee valley Authority in 1933 as part of Franklin D. Roosevelt's New Deal reform agenda.[23]

Norris' efforts were fueled in part by the revelations of the Federal Trade Commission's investigation of the electric utilities. The FTC found that 80 per cent of the nation's electric power was produced by only 16 giant holding companies which manipulated security markets, padded operated expenses, and drained local operating facilities with excessive service charges and management fees. The holding companies used a pyramidal management and financial structure which permitted them to control a vast number of operating facilities under unified management. Between 1919 and 1927, the report noted, more than 3700 local utility companies were consolidated into regional power systems controlled by utility cartels virtually free of local, state, and federal regulation. This arrangement reaped huge profits for speculators and gouged consumers with

excessively high electric rates. The holding companies also owned railroads, interurban streetcar lines, ice houses, waterworks, and investment houses, and controlled vast utility operations in South America, Eastern Europe and the Philippines.[24]

In addition to helping pave the way for the TVA and other New Deal public power projects, the FTC investigations provided stimulus for passage of the Public Utility Holding Company Act of 1935. Bitterly opposed by the utilities which spent more than $1 million to fight it, that legislation authorized the Securities and Exchange Commission to dissolve holding companies twice removed from their operating companies and required utility holding companies to register with the SEC and provide it with periodic financial reports. New Deal utility reform measures also helped the efforts of city officials and rural cooperatives to develop non-profit electric power systems.[25]

The FTC's summary also reported the existence of a nationwide public relations and lobbying network coordinated by the utility trade associations "which had for its objective the disparagement of all forms of public ownership and operation of utilities,and the preachment of the economy,sufficiency,and general excellence of the privately owned utilities." Commenting on why the industry undertook that campaign, one utility official noted that "without this, I venture to say that state, municipal, and Government ownership would have been 100 percent ahead of what it is today." In testimony before the FTC, P.S. Arkwright, a former official of the industry's largest trade group, the

National Electric Light Association, described that organization's public relations agenda:

> The electric light and power industry and the NELA are opposed to government in business, and are particularly opposed....to state or municipality or the Federal Government, or political subdivisions taking over or engaging in the business of supplying electric light or electric energy. It feels that it is its obligation to itself at least, to resist the effort to take over into government or state or municipal or political ownership and operation,the business of supplying electrical light, power,and heat. So it does oppose it. It does circulate publicity with reference to it --in opposition to it. [26]

In 1920 the National Electric Light Association announced the creation of a Public Relations Section which would conduct "a general campaign of education of the public in some of the problems and little-known facts regarding the electric light and power industry." Pre-eminent among the electrical industry trade groups, the NELA, formed to "foster and protect the interest of those engaged in the commercial production of electricity for conversion into light,heat,or power, and their customers," had 12 regional subdivisions covering the United States, and worked with 23 state "utility information committee" affiliates. The state committees recruited experienced, "newspaper-wise" editors and reporters as directors, valued not only for their knowledge of the newspaper business, but also for their long years of contact with other regional journalists, business leaders,and government officials. Using materials provided by the NELA and information

solicited from regional utility executives,the state committees prepared weekly utility "news" bulletins which were mailed to editors in the hope that they might use some of the items therein as the basis for articles and editorials consistent with the industry's political agenda. At NELA's request the state committees measured the amount of column inches of favorable copy and editorials thus secured, and reported that information to NELA's public relations section. [27]

One indication of the success of the state committees in securing favorable reportage based on the content of the weekly utility news bulletins came at a 1922 meeting of the Texas Public Service Committee during which a NELA official reported that "there are 23 states with bureaus functioning in such a way that newspapers in 6 states are using an average of 8,500 column inches of material every month,of which approximately one-fourth...is editorial comments favorable to the utilities." Similarly, referring to clippings from newspaper columns reprinted from its weekly bulletins in 1923, the New England Bureau of Public Service Information showed 12,280 column inches, or about 585 columns for the year. The total amount of clippings comprised nearly 1300 columns, roughly the equivalent of 156 pages of the size of the then daily newspaper. The New England bureau enthusiastically noted that "one of the most interesting and valuable results we have so far obtained has been the number of editorials published in many of the leading newspapers of New England, where our material has been directly reprinted in the

editorial columns or taken as a text for favorable comment on the public utility problems." [28]

Because NELA staffers prepared many of the items distributed to regional editors via the state information committee news bulletins, the topics of the articles and editorials thus derived represents a cross-section of the kinds of utility "news and views" many newspapers in the 1920s printed. Entries from the Ohio and Texas bulletins,printed unchanged or given a local angle included:

> Municipal Ownership of Utilities a Lemon; Public Ownership is not a Good Thing; Private Utility May Compete with City; Many Towns Are Saving Money by Getting Out of the Light Business; Keep Politics Out of Business in the United States; Government Ownership Advocates Shade from Deepest Red to Mauve; Russia Tried it Too; and Socialism Means Death to Initiative. [29]

One state committee director reported that articles and editorials linking public ownership with socialism,or discussing the failure of individual municipal power plants,often increased when utilities took out advertising in their local newspapers. S.T. McQuarrie, director of the New England Bureau of Public Service Information, recalled that some editors resisted, at first, his attempts to get them to reprint items from the New England utility news bulletin. "If you want to get into our news column," one editor told McQuarrie, "why don't you advertise?...There's plenty of white space at regular rates." Other state committee directors encountered similar resistance,and the NELA began advising members to curry editor's

favor by taking out advertisements in their local papers. [30]

The Edison Electric Illuminating Co. of Boston, for example,heeded that call so successfully that in 1924 the Harvard School of Business Administration began using a case study of the company's newspaper advertising to illustrate how advertising might be considered "as a broader question involving not only the promotion of sales, but also the development of favorable public relations." That many utilities followed Boston Edison's lead is indicated in a report to Denver utility officials in 1928 by Paul S.Clapp, NELA's managing director, who observed that "in the last five or six years the total amount spent by the individual light and power companies for advertising--mostly in local newspapers--has increased from $1,500,000 to approximately $10,000,000 annually."[31]

In addition to using advertising to foster mutually beneficial press relations, the state committees frequently entertained editors, publishers, and reporters. The Texas Public Service Information Bureau invited journalists to banquets and luncheons because it wanted to "extend some courtesy" to Dallas newspapermen. In a November 1927 letter to C.W. Davis of the Dallas Power and Light Company, the director of the Texas bureau observed that one such event sponsored by that utility was "from a public relations standpoint apparently a good idea,"because one journalist present remarked, "If people could see what a large amount of money is necessary to build an electric plant they would know why rates are so necessary." And at a 1925

National Conference on Information Committee Work the director of the Rocky Mountain utility information committee told conferees that it invited twenty editors to its annual convention, with each member utility responsible for the expenses of journalists from its locality. The director of the Rocky Mountain committee reported that a Denver editor, in a three page letter, thanked the manager of the Public Service Co. of Colorado at Denver for covering his convention expenses, and remarked that "he had learned more about the utility business and about the character of the men in it than he had ever dreamed of." [32]

The NELA's work with the state information committees accompanied its subsidization of specialized news and editorial services to which several thousand small-town dailies and weeklies subscribed. While representing themselves as independent organizations not tied to business interests, these news services often received as much as half of their income from utility concerns. The NELA, for example, contributed $ 84,000 annually to E. Hofer and Sons of Salem,Oregon, whose other sponsors included the Bell combine and utility holding company groups and management companies. Subscribers did not pay for the Hofer services, nor did they know that the agency was heavily subsidized by the utilities. The agency put out a monthly trade journal,<u>The Manufacturer</u>; a weekly industrial review sent to state newspapers; and a weekly Industrial News Bureau Bulletin of two to four pages of editorials. In a September 1926 letter to an official of Omaha's Nebraska Power Co., Robert Hofer

suggested how his agency's services could contribute to the utilities'public relations objectives:

> The Nebraska Utilities Information Committee and the National Electric Light Association can give authentic information on statistics, management (and)operation....of electric light and power companies. After such information has been issued it is then a question of getting it commented on editorially and thoroughly understood by the general public...At this point our organization begins to function....As an independent publication not directly and primarily affiliated with the electric light companies,but discussing various industrial problems, we can take many legislative, political, taxation,and government ownership questions and discuss them as they affect public utilities. In other words, a third party opinion is often accepted with less bias in an editorial discussion than a statement from parties directly involved. [33]

The following editorial provided by Hofer was reprinted unchanged in 1927 by more than 13,000 rural papers:

> One hundred and five municipally owned, or operated electric light and power plants in 27 states were sold to private operators during 1926. This number increases to a total of 1,234, the municipal plants sold,abandoned, or shut down within recent years,says a report from the National Electric Light Association....According to newspaper accounts in the files of this association, municipal operation was given up after overwhelming sentiment favoring private operations had been registered at the polls in practically every case reported.Uneconomic political management and political influence, with their attendant ills, appear to have been a leading cause of dissatisfaction with the municipal plants. [34]

In addition to covertly subsidizing newspaper articles and

editorials espousing the electrical industry's interpretation of the issues in the power debate, the NELA-- in conjunction with another trade association,the Society for Electrical Development--supplied local affiliates with advertising and news copy for special "electrical" newspaper sections modeled after fashion, household, and recipe pages. These so-called "electrical pages" featured items furnished by the trade associations juxtaposed with advertising placed by the members of the electrical leagues whose members usually included utility companies, contractors, and dealers who served a particular locality. [35]

The electrical section in the November 6, 1927 Washington Post featured a column of "Electricana"(news,electrical facts,and safety tips provided by the Society for Electrical Development) and an article on the variety of household applications and benefits of electric fans. These items accompanied advertisements placed by the Potomac Electric Power Co.; the Electrical League of Washington, D.C., the section's sponsor; and the National Electrical Supply Co., an electrical wholesaler for "D.C. and parts of Maryland and Virginia." A column of league news reminded members and interested readers of an upcoming meeting at which the editor of the Electrical World would discuss wiring standards and safety procedures, and also mentioned that the general manager of the Virginia Electric and Power Co. at Richmond had requested copies of the Post's electrical page for use " as a model in an effort to inaugurate

a similar activity in that Southern City." [36]

In conjunction with the newspaper services that the Society for Electrical Development and the National Electric Light Association provided, both organizations used "ghost-writers" to author magazine articles promoting electricity and the industries that provided it. In the minutes of its November 1920 meeting the Public Policy Committee of the NELA referred to an article on "Electric Energy for Industry" by Floyd Parsons in the Saturday Evening Post, noting that the piece marked the first of a series of similar efforts planned for publication in several national weeklies. Stressing that the "public utilities are doing a great deal to make our lives comfortable and prosperous," Parsons wrote that "Electricity is so essential in our modern life that when the supply of it is deficient in any district, industrial progress is impeded. Having established the centrality of electrical power and equipment in modern life, Parsons then discussed why utility regulation by state commission was preferable to municipal ownership or increased federal regulation. [37]

Similarly evoking images of electrical progress, Chester T.Crowell's "Nine Slaves for Each Citizen" in the Post's November 6 1926 number , observed that "the great central power plants are the heart of the machine age..." Without them,insisted Crowell, devices such as "electric vacuum cleaners , dishwashers, floor polishers, and a thousand implements operated by motors in workshops and factories would not exist." Crowell hailed the

engineers in the research laboratories as the architects of an electrical revolution "compared with which Marxian Socialism or Russian Bolshevism would be puny and futile, a mere dance in the wind." In the name of public service, said Crowell, the engineers had provided "freedom for elbows and the enfranchisement of brains." They had created, "slaves without number for every man, woman, and child," declared Crowell, and still humanity was "just peeping over the mountaintops,catching the first glimpse of a new world." [38]

Both writers had ties to the National Electric Light Association. In a 1920 letter to J.F. Owens, General Manager of the Oklahoma Gas and Electric Company and Chairman of the Public Relations Section of the NELA, L.W. Morrow,Electrical World's managing editor,discussed Parson's work:

> I wish we could find more tangible material to justify the holding company.....With Congress coming on and with prospects for speeches,investigations and other attacks, there should be built in the public mind such a true and real idea of the industry that a blackspot or two may not be accepted as typical....It seems to me feature writers in the Saturday Evening Post and other general periodicals might well be interested in the romantic and interesting stories which lie at hand in the electrical industry. Perhaps a luncheon or two comprising a utility executive and a feature writer would introduce the elements sufficient to excite interest and a story would follow. I have seen this approach used with Parsons...and others with success. [39]

Crowell,NELA records indicate, received $2000 in 1930 for preparation of a pamphlet series on the fundamentals of the

utility business which was distributed to power and lighting company employees. Referring to Crowell's magazine work, George McQuaid of the Texas committee wrote to his Missouri counterpart that "Crowell is writing a mass of mighty fine public utility stuff in the Saturday Evening Post and other magazines... Crowell is one of my boys...I have consolation for a long newspaper career in seeing bright young fellows such as Crowell,whom I brought up, doing good work all over the country in many lines of endeavor." [40]

In addition to supporting ghost-written features in national magazines, industry spokespersons also took to those publications to emphasize the centrality of electric power and equipment in modern life. In a 1919 article in the Forum describing the contribution of the electrical industry to the war effort, Westinghouse's advertising director concluded that "as electricity keeps the light shining in the torch of the Goddess of Liberty in New York Harbor, so does it lend its potency to help keep bright and clear the light of liberty for all mankind." That patriotic rhetoric was joined by General Electric's popular engineer and researcher Charles P. Steinmetz's commentary on electrification and civilization in a 1922 essay in Harper's. Linking electrification with technical progress, Steinmetz observed that "while the supply, transportation and distribution of materials" had seen significant technological advances, " we are still backward in the energy supply for the needs of man." [41]

Cooperative magazine advertising by the trade associations,technical publications, and major manufacturers also helped spread the "electrical idea" in the 1920s. Applauding the efforts of the NELA in recruiting manufacturers to "appropriate space...to make friends for the electrical light and power companies,"Electrical World observed in 1921 that "it is refreshing to find the rest of the industry spending its money and lots of it to promote utility good will." Companies participating in what the NELA called its"Manufacturer's Good-Will"campaign included General Electric, Westinghouse, and Western Electric. [42]

General Electric's first entry in the series appeared in the February 26 number of the Saturday Evening Post and stressed that "Bending electricity to do man's will would be futile without the electric light and power companies to bring the fruits of research to the world's fingertips." Praising the "Men whose watchfulness, integrity, and loyalty make their public service a true service to the public," General Electric suggested that "the sympathetic interest of a consuming public which views fair-mindedly the operating and financing problems" of the utilities was crucial to the maintenance of that service.Electrical World also participated in the campaign,taking out a full-page ad in the April 9 edition of Collier's announcing that "the time is here when all of us must do well by our electric light and power companies if we want to do well by ourselves...for no city moves forward unless it can see clearly

and has all of the power it can use." [43]

In conjunction with the manufacturer's "good-will" campaign, the NELA ran a series of ads in the Saturday Evening Post throughout the year. Electrical World stressed how the cooperative efforts of the manufacturers and the NELA helped "make the public understand sympathetically the unconscious reliance that the individual places on the utility." Consider NELA's "The Silent Policeman," in the June 11, 1921 Post, describing what happened when, during World War I, the mayor of one city ordered the reduction of street lighting as an energy conservation measure. The ad stated:

> Within an hour after the order was put into effect, three murders, a score of hold-ups and innumerable robberies, including the theft of the Mayor's own car from in front of the City Hall, were committed. Before the night was over, the Mayor ordered the street lights turned on again.

Only because of "the faith of some 1,450,000 investors in the securities of the electric light and power industry," the ad concluded, can "these silent policemen stand at your street corners." [44]

The manufacturers also cooperated with the NELA to, as Electrical Merchandising put it, " 'Electrify' General Advertising in the Popular Magazines." The electrification of popular magazine advertising meant trying to persuade advertising agencies to use electrical themes and images in the advertisements they created for their clients who produced non-electrical goods and services. Thus the NELA solicited

illustrations and photographs of manufacturer's product lines for inclusion in a portfolio sent to ad agencies with the idea that,for example,"when an agency is preparing a soap advertisement and wishes to show the soap in use in connection with an electric washing machine,the artist can turn to our book and get the proper detail." The NELA's National Commodity Advertiser's Division requested member utilities to subscribe to national magazines and "look for ads of general commodities in which electrical appliances should be shown to make their spirit very modern." Upon finding "a soap ad with a picture of an old-fashioned washtub,or a coffee ad with an alcohol percolator,or a rug ad with a hand broom shown," the National Commodity Advertiser's Division asked members to "please immediately write the manufacturer whose ad it is" and suggest it "would be strengthened and brought more up-to-date if they pictured their product used in a modern setting with up-to-date appliances." [45]

The emphasis on linking electrical power and equipment with progress that was repeatedly articulated in the technical press also shaped the adverting of individual firms. The Edison Lampworks of the General Electric Company celebrated its founder's contribution to the Western civilization in an ad conceived around a Maxfield Parrish illustration of the mythical Prometheus which read:. " From hand to hand the torch of Prometheus was passed down through the years....when at last the torch was grasped by Edison and lo!.....it became an incandescent

lamp." Detroit's Square D Safety Switch Company called electrical energy "The Mainspring of Human Progress." Similarly, the 1900 Washer Company's "Away Goes the Washtub" ad featured an anthropomorphized numeral "eight" gleefully kicking over a wooden washtub while an awestruck housewife watched in amazement. "You don't need it(the washtub)when you have the 1900 Cataract Electric Washer with its magic figure 8 movement," the ad suggested. [46]

In addition to encouraging the industry to employ progressive themes and images in its promotional messages, the trade associations monitored the popular press for news stories and advertisements which purveyed negative portrayals of electrical power and equipment.Thus the Society for Electrical Development,according to general manager J.M. Wakeman, " guarded the interests of the industry by watching for harmful advertising or motion picture films and by checking up the facts,wherever possible, when newspapers report fires as caused by defective insulation,crossed wires, or other electrical troubles." In 1920, for example, a leading switch manufacturer ran a series of ads in the Literary Digest, Factory, and Nation's Business, with graphic depictions of electrical accidents with "scare" headlines such as "Groping through the darkness, he found--the exposed knife switch." Supporting the Society's efforts in persuading the company to abort the campaign,Electrical Merchandising warned that advertising that used the dangers of electricity to underscore the safety features of fuses,switches,wiring,and

insulators was "calculated to create groundless fear of electricity and electrical devices in the minds of the general public, and so do incalculable harm to every electrical interest." [47]

Hollywood feature films were also seen through the Society's critical lens. One film included a bizarre death scene in which the villain picked up a teakettle wired into an overhead socket, suddenly fell into convulsions, and collapsed dead. Officials from the Society contacted the film's producers and persuaded them to change the scene. As director Wakeman explained at the 1920 NELA convention in Pasadena:

> (We got that off.) I took it up with the producers of the film, pointed out to them the amount of money invested in the industry, the number of people engaged,and the amount of harm such a film would do. I asked to have the villain drop off a cliff or kill himself in some other way,and they killed him off satisfactorily without damaging the electrical industry.[48]

That episode prompted the NELA to establish a Film's Division to "study the possibilities of the motion picture to advertise the use of electricity to educate the American people to the realization of its importance." In emphasizing the educative potential of motion pictures, the Film Division suggested that while "the reader of a paper hastily turns page after page....Each click of the motion picture camera forms millions of subconscious cerebral impressions from which the vast audiences which attend motion picture houses could not escape if they wished." At the NELA's 1923 convention a New England

official reported that he had encountered little resistance in persuading Boston theaters to show the NELA films "Back of the Button" and "Yours to Command." By the end of 1922, NELA records indicate, "Back of the Button" had been shown in 4,000 theaters nationwide to approximately 3,000,000 people, and also played at state fairs,granges, and business meetings. [49]

Industry leaders also recognized radio's potential to reach a national audience. Though radio did not become a significant advertising medium until the late 1920s, early on it was seen, according to Electrical Merchandising, "as a wonderful new agency for carrying a message to the public." In 1922 the Society for Electrical Development began to provide radio stations with "ready-made"lectures on a wide range of electrical subjects, which "any interested electrical man can take to his nearest...station and arrange to have broadcasted for the benefit of his community. Noting that "there is usually a very close connection between the local broadcasting station and the local electrical industry,"the Society urged that "advantage should be taken of the local opportunity to broadcast the electrical message and secure valuable publicity for the electrical idea." [50]

In 1926 the Public Relations National Section of the NELA reported that "the use of radio in the broadcasting of information and advertising concerning the electrical industry is steadily increasing." The number of stations broadcasting public utility information and electrical news, and their ties to the

electrical industry, was indicated in a letter from the Federal Radio Commission to the Chief Counsel of the Federal Trade Commission, May 2, 1929. Of the 23 stations discussed,15 were owned by manufacturers of power equipment, motors,and radio apparatus. The director of the New York Committee on Public Utility Information reported to the NELA in 1926 that there had been 98 radio talks that year on general utility matters, reaching an estimated audience of more than 10,000,00. [51]

Typical examples of the electrical gospel on radio included a talk prepared by the Society for Electrical Development for distribution to its local electrical league affiliates; and an address by Georgia Power Co. president and NELA official P.S.Arkwright broadcast on New York radio station WRNY. The text of the Society's address discussed numerous household applications of electricity, noting that "Electric service makes life worth living everywhere--for everybody. Its possibilities are boundless. Its value is limited only by the degree to which it is made the servant of mankind." Expressing similar ideas about how electricity helped make life easier, Arkwright's remarks also took a political tack. Referring to the upcoming FTC investigation, the Georgia Power Co. president asked listeners if they knew that "the further development of the electrical industry is menaced? It is proposed to socialize it, to turn it over to State and Federal Government ownership and operation," Arkwright warned, and "to remove from the electrical industry all individual initiative and enterprise." [52]

The threat to free enterprise and American individualism that government ownership presented was echoed in the numerous speeches and lectures that industry leaders delivered at civic clubs, chambers of commerce, business meetings, granges, city councils, public schools and colleges. The NELA organized a Public Speaking Committee in 1922 which set up speakers bureaus not only for its geographical subdivisions, but also for its 23 state utility information committee affiliates.Recognizing that many electrical representatives needed training in the fine art of public address, the state committees and several utility companies hired instructors to help inexperienced speakers improve their oratory. In addition, the NELA and state committees issued speakers handbooks with "model" addresses offering typical industry positions on government ownership, rates, financing, and holding companies. These handbooks advised that when utility representatives discussed these issues, they needed to remind their audiences, as one guide put it, "of the intimate relation of public utility service to the life of all." Between 1925 and 1930, NELA records indicate that utility officials and other industry representatives presented the twin gospel of electrical salvation and private ownership to an estimated audience of 19,000,000. [53]

A ceaseless tide of pamphlets and bulletins also helped give the "electrical idea" national currency. Consider the massive distribution in 1924 and 1925 of the so-called "Bruce Barton envelope stuffers." Barton, an advertising leader and author of

the 1924 best-seller The Man Nobody Knows,a portrayal of Jesus Christ as the best salesman in history, first made contact with the electrical industry when he persuaded General Electric to adopt a single trademark on all of the company's products and advertisements. The NELA paid Barton $175,169 for preparation of two series of pamphlets, one, a set of four sent quarterly to utility stock-holders with their dividend checks,the other a set of thirteen sent to utility customers with their monthly bills. Private utility companies distributed more than 9,000,000 sets of these publications with a total distribution for both of 120,000,000. Titles included, "Why Did 860 Municipally Owned Plants Close?"; "Muscle Shoals"(a statement opposing government control); and "What Is a Holding Company?" The first of these had on its cover a picture of a power plant entitled "Municipally Owned Electric Company" with a boldly lettered sign at the top, "Closed." [54]

Future ratepayers encountered industry-sanctioned electrical education in the nation's public schools, colleges, technical institutes, and universities. Utility officials and other industry spokespersons addressed school assemblies and college classes, often in conjunction with tours of the local power plant where students viewed electrical cooking and heating demonstrations. Several power companies sponsored essay contests involving electrical themes;loaned lighting and sound equipment for athletic contests, plays, assemblies, and dances; frequently advertised high school yearbooks. Numerous pamphlets told

students about the marvels of electricity and the virtues of private ownership. Moreover, NELA officials surveyed economics and civics texts and found several that contained "inaccurate" statements about utilities ranging from accusations of rate-making abuses to discussions of the inadequacies of the state public service commissions. Textbooks were censored and more acceptable works commissioned in their place. University business, economics, and engineering faculty received grants and fellowships for reports and monographs favorable to private ownership, and also prepared materials for public utility economics courses interwoven with similar themes. [55]

Expositions, trade fairs, and model "electric home" exhibits also played a major role in getting Americans to "Do it Electrically." From a marketing standpoint the electrical shows were seen as educational institutions in which consumers could find, according to the commercial manager of the N.Y. Edison Company, "an aggregation of modern appliances exhibited and demonstrated under the best physical and psychological conditions, together producing a mass effect which, taken alone by itself,is a very desirable kind of publicity." The San Francisco Electrical Development League, for example, sponsored a Palace of Electricity at the 1924 California Industries Exposition held November 17-December 2 at that city's Civic Auditorium. The 24 firms whose display booths, information stalls, and lighting,heating, and cooking demonstrations comprised the Palace's exhibits, represented national and

regional manufacturers, and local contractors, dealers, and utility companies. The San Francisco League recorded attendance at 362,000, noting that several firms reported on-site equipment and appliance sales along with numerous requests for product information. Similarly, the Alabama Electrical League and the Birmingham News co-sponsored an exhibition in March 1926 which drew more than 90,000 visitors, saw brisk appliance sales, and, according to Electrical World, elicited a public response that "surpassed all expectations and showed a great degree of popular interest in the advances made by the utilities,the manufacturing companies, jobbers, and retailers." [56]

An equally effective means of showcasing electrical power and equipment were the model "electric home" exhibits staged by local utilities, contractors and dealers who recruited real estate agents, bankers, architects, builders, furniture dealers, and plumbers to help plan, build, and finance the projects. Major manufacturers such as General Electric and Westinghouse--working through their authorized local dealers--donated appliances and fixtures, while the local utility company provided free power. Promoted with newspaper advertisements,billboards, window cards, envelope stuffers, and fliers, the electrical homes, observed Electrical Merchandising, represented the most practical, the most timely, and probably the most powerful merchandising idea ever put before the electrical industry." In 1922 the Society for Electrical Development issued a monograph on" Organizing and Exhibiting the Electric Home," which included a survey of 17

exhibits in cities such as Denver, Utica, N.Y., Cleveland, Detroit, Louisville,Ky., and Los Angeles. Attendance during the average 2-3 weeks most exhibits ran ranged from 10,000-50,000, with several of the local electrical leagues that sponsored the homes reporting extensive newspaper coverage of their exhibits. [57]

Display windows in utility showrooms,department stores,and electrical shops presented yet another means of bringing the "electrical idea" before American consumers. The technical press repeatedly reminded retailers of the importance of effective window merchandising, frequently publishing photographs of exemplary displays. Some windows achieved a museum-like effect by placing single appliances on pedestals in soft-lit windows. Ornate drapery and mirrors helped highlight the metallic lines of percolators, toasters, irons, and fans. "Then and Now" displays were also popular and usually compared the drudgery of the washtub, hand broom, and flat-iron with the labor-saving advantages of washing machines, vacuum cleaners and electric irons. A Toledo, Ohio electrical shop built a display around the theme of "Electrical Appliances for Gifts,"which featured heaters, toasters, and percolators on an oriental rug flanked by glass-top tables upon which rested waffle irons, lamps,and a chafing dish. A washing machine behind the rug completed the display. Taking a different tack, the Interstate Electric Company of Springfield,Mass. created "A Study in Contrast " display in which a corn-broom,kerosene lantern, and treadle

sewing machine were shown with their modern counterparts, a vacuum cleaner,flashlight, and an electric sewing machine. A card placed in the center of the window asked "For Your Home, the Old or the New?" [58]

Door-to-door salespeople also played an important role in popularizing household appliances, a point that the trade press repeatedly emphasized. Electrical Merchandising declared " the trick that swells the sales curve and puts electrical goods across is bare-handed house-to-house selling." Likewise the Journal of Electricity pointed out that, "an electrical appliance may be advertised nationally by the manufacturer and locally by the contractor-dealer, yet the sales will not be large unless the appliance salesman brings the device directly to the housewife's door." Chicago's Commonwealth Edison Co. originated the idea of in-house appliance demonstrations, employing a sales crew which used electric trucks to transport appliances throughout the city." So we back an electric truck up to the curb," explained E.A.Adkins, General Manager of Chicago Edison's Electric Shops, "And the salesman rings the door-bell, shows the housewife the washers on the truck and asks for five minutes of her time, that she may see what it means to 'Do it Electrically' in her laundry with her clothes." [59]

Thus door-to-door appliance solicitors completed the promotional apparatus which sought, as one industry spokesperson put it, to "expand the electrical industry by informing the public continually of the vital part that electricity plays in

modern civilization." The industry's rapid growth and expansion during the 1920s bears testimony to the effectiveness of that approach. From 1919 to 1929 the number of electric motors in use in the United States rose from 9.2 million to 19.1 million, with the percentage of electric power machinery used in factories increasing from 31.7 per cent to 49 per cent. By 1929, more than 95 per cent of machinery manufacturing had been electrified. Between 1902 and 1929 electric power output increased from 6 billion kilowatt-hours to 117 billion kilowatt- hours, and over that same period domestic consumption of electricity increased 135 per cent. While magazine advertising expenditures for representative household appliances approached $600,000 in 1921, by 1927 that amount had increased to $1,483,964. Newspaper advertising budgets for the electrical power and lighting industry exhibited a similar trend,increasing from $1,500,000 in 1921 to approximately $10,000,000 in 1927. By 1929 more than 70 per cent of American homes had been wired for electricity, and 80 percent of these had electric irons, 37 percent had vacuum cleaners, and 25 percent had washing machines. While sales of household appliances amounted to $178 million in 1922, that figure had risen to 61 million by 1928. Economist Stuart Chase estimated that by 1929 more than 17,000,000 homes had been wired for electricity that powered 15,300,000 irons, 6,828,0000 vacuum cleaners, 5,000,000 washing machines, and 7,555,000 refrigerators. [40]

To ascribe the industry's rapid growth and expansion during

the 1920s to its advertising and public relations activities alone, however, is facile. The rapid proliferation of easy credit,installment buying,and the speculative ventures of finance capitalism that accompanied the economic boom of the 1920s helped give the industry's advertising and public relations a broader resonance. Such was not the case with its campaign against stronger federal regulation of the production and distribution of electric power. The disclosures of the FTC investigations resulted in legislation that dissolved the giant holding companies whose regional scope had defied the administrative powers of the state regulatory commissions. Yet its campaign against municipal ownership produced results more in line with its oft-stated goal of combatting municipal ownership. In 1925 the number of municipal electric systems in the United States peaked at 3,083, and by 1930 that number had decreased to 1,927, and today stands at about 1,900. [61]

In assessing the cultural impact of the campaign to sell the "electrical idea" in the 1920s a useful point of entry into the ideology articulated in the industry's advertising and public relations lies in an advertisement placed by the Byington Electric Co. in the September 5, 1930 San Francisco Chronicle. "Women," the ad read, "Celebrate Your Independence By Using Electricity." Claiming that "Labor-saving electric devices have caused the emancipation of the American housewife," the ad suggested that women could achieve independence by availing themselves of the benefits of household appliances and thus have

time to "enjoy some of the recreation formerly monopolized by that lord and master fellow that folks seemed to think was an institution." [62]

But as Ruth Schwartz Cowan points out, the labor-saving benefits of household appliances may have existed only in the advertising copy that promoted them. As she convincingly argues, the so-called revolution in household technology actually made "more work for mother" when servants, daughters, and maiden aunts flocked to the high-paying factory jobs created by the war. Cowan suggests that women with "labor-saving" electrical appliances were spending just as much time on household chores as did women without them. In fact, claims Cowan, the era marked by the influx of electrical appliances into the consumer marketplace signalled the emergence of more stringent housekeeping standards. [63]

When seen against the backdrop of the debate over electric power policy during the interwar years, the electrical industry's efforts to promote electrification and private ownership illustrate how the marketing and merchandising of goods and services is often linked to political objectives. As T.J. Jackson Lears observes, "advertisements are sponsored by powerful groups and they promote an ideal vision of life." And given the pervasiveness of advertising,says Lears, "one does not need to embrace a mechanistic notion of manipulation to acknowledge that the vision promoted by advertising exerts subtle influences on everyday life." Lears suggests that the "most useful links

between advertisements and cultural meaning..." emphasize "advertising's capacity to muddle meanings--not only by using half truths and vague, unprovable claims, but also by situating commodities amid contradictory symbolic attributes:the new improved product is yoked to the image of a traditional society; the driven businessman is placed in a pastoral setting." [64]

Thus selling the "electrical idea" in the 1920s meant linking electricity with nationalism, progress, the individual, freedom, peace, democracy and abundance. However, selling the "electrical idea" also meant not showing the smokestacks and ash heaps of coal-fired power plants. Electrical advertising and public relations never took up the social, economic, and political consequences of strip-mining and the construction of hydroelectric projects. Nor did it ever discuss the financial wheeling and dealing responsible for the growth and expansion of the holding company cartels whose paper fortunes, many say, played a pivotal role in the stock market crash in 1929 that ushered in the Great Depression.

By reconstructing the managerial imperatives that shaped the promotional materials and public events used to sell the "electrical idea" in the 1920s, it becomes possible to appreciate how the nationwide network of trade associations used to market that ideology functioned as a "consciousness industry" which sought to institutionalize private control and development of the nation's electrical power resources by submerging that mandate in the mythos of the electronic revolution. [65]

As automobile magnate Henry Ford--whose rise to industrial prominence began with his experiments with internal combustion engines while a plant superintendent at the Detroit Edison Company in the 1890s-- put it:"The biggest job before the utilities is to get electricity into the minds of the people." Ford's " ... Message to Electrical Men" emphasized that consumers "do not ask to understand the technology of electricity nor even the business phase of the industry." The public, said Ford, only needs to be shown "how tremendously much more electricity can do for them if they will only let it." [66]

Ford's comments underscore the irony of the divergence between Ernest Greenwood's fictitious power failure as described in Aladdin.U.S.A and the historical realities of the great Northeastern blackout of 1965; that linkage so much the more telling in light of Greenwood's sponsorship by the utilities for his declaration of the infallibility of the nation's electric power grid.

Recent work in what one participant calls the "history of the future that used to be," suggests how a "warts and all" history of advertising and public relations can foster an appreciation of the ethical issues encountered by mass communicators. That enterprise, according to Joseph J. Corn, emphasizes that past predictions about the social impact of new inventions such as articulated in Aladdin.U.S.A. "have been entwined with the development of industrial capitalism--in particular, with the emergence of a society based on mass

consumption." [67]

Endnotes

[1] See Donald K. Wright, "Professionalism and Social Responsibility in Public Relations," Public Relations Review 5 (Fall 1979),p.21; and Carolyn Cline, "The Image of Public Relations in Mass Communications Texts," Public Relations Review 8 (Fall 1982),p.71.

[2] Public relation's reluctance to confront the historical realities of its development may contribute to the fact that as Michael Ryan and David L. Martinson's "Ethical Values, the Flow of Journalistic Information and Public Relations Persons," Journalism Quarterly 61 (Spring 1984),p.33, reports," that subjectivism(or individual relativism) is the prevailing moral-ethical theory." On the subjectivity of public relations and media ethics see , respectively, David Finn,"Struggle for Ethics in Public Relations," Harvard Business Review 37 (January/February 1959),p.51; and the insightful comments of Hodding Carter's foreword to Clifford G. Christians, Kim B. Rotzoll, and Mark Fackler's Media Ethics:Cases and Moral Reasoning (London:Longmans,1983),p.xi:"...the domain of the mass media today is an ethical jungle in which pragmatism is king, agreed principles as to daily practice are few, and many of the inhabitants pride themselves on the anarchy of their surroundings."

[3] For information about the Northeast blackout see "Northeast Power Failure:A Report to the President," Federal Power Commission (Washington,D.C.:U.S. Government Printing Office,1965); and David H. Davis, Energy Politics (New York:St. Martin's Press, 1978),pp.167-169.

[4] "Aladdin's Lamp Blacks Out," an editorial,New York Times,November 10, 1965,p.6;John Lear, "The Night They Unplugged Society," Saturday Review, December 4, 1965,p.83; "The Longest Night,"Newsweek, November 22, 1965,p. 32; and Theodore White,"What Went Wrong?Something Called 345 KV," Life,November 21, 1965,p.36.See also James Oliver Robertson,American Myth:American Reality(New York:Hill and Wang,1980),p. 277-279, for an insightful analysis of public reaction to power failures terms of their contribution to a general erosion of public faith in the ability of science and technology to solve human problems.Occurring amid the eruption of anti-technology sentiment in the 1960s, the blackout was seen as yet another crack in an increasingly complex infrastructure whose interconnectedness challenged humanity's ability to direct it as intended. For an overview of the range of critical dialogue about technology in the 1960s see Leslie Sklair, "Sociology of the Opposition to Science and Technology:With Special Reference to the Work of

Jacques Ellul,Comparative Studies in Society and History:An International Quarterly 13 (April 1971),pp.217-235; Bruce O. Watkins and Roy Meador, Technology and Human Values:Collision and Solution Ann Arbor, Mich.:Ann Arbor Science Publishers, Inc.,1977,pp.71-92; and Samuel C. Florman, The Existential Pleasures of Engineering(New York:St. Martin's Press,1976,pp.45-56. Florman's account, it should be noted, while reliable as a summary of the anti-technology argument, reviewed that position in order to reject it and erect in its place a new "philosophy of engineering" which would not, on the one hand "deny that machines have contributed their share of ugliness to the world," while at the same time suggesting that "such ugliness often has a strangely transient quality about it."p.135.

[5] For a summary of the technical, economic, political, and social issues associated with the continued proliferation of electrical power and equipment see Technology Futures, Inc. and Scientific Foresight, Inc., Principles For Electric Power Policy (Westport, Conn.:Quorum Books,1984), based on a 1981 National Science Foundation multi-disciplinary technology assessment of alternative United States electric power futures. On the complexities of the environmental implications of electrical power production see Marc J. Roberts and Jeremy S. Bluhm, The Choices of Power:Utilities Face the Environmental Challenge(Cambridge,Mass.:Harvard University Press,1981); and Martin V.Melosi,Coping With Abundance:Energy and Environment in Industrial America (Philadelphia:Temple University Press,1985,pp.209-212. On the re-assessment of the future of nuclear power forced by the accidents at Three Mile Island and Chernobyl see, respectively, Daniel Ford,Three Mile Island:Thirty Minutes to Meltdown (New York:Penguin Books,1981); and Richard Rudolph and Scott Ridley, Power Struggle:The Hundred Year War Over Electricity (New York:Harper and Row,1986),pp.238-239.

[6] Andrew Pollack,"New Era for Electric Utilities:Residential Rates Might Rise," New York Times,August 11, 1987,p.1,46.For an overview of re-structuring and deregulation proposals see Rudolph and Ridley,Power Struggle,pp.210-211.

[7] Craig Brod's Technostress:The Human Cost of the Computer Revolution (Reading, Mass.:Addison-Wesley,1984); and David Burnham's The Rise Of the Computer State (New York:Vintage Books,1984), critically examine the spectrum of social, psychological, and political implications of the computer "revolution." For discussion of the related issues of job displacement and retraining see Larry Blair, "Worker Adjustment to Changing Technology:Techniques, Processes, and Policy Considerations," in American Jobs and the Changing Industrial Base,Eileen L. Collins and Lucretia D. Tanner, eds; (Cambridge:Ballinger, 19840,pp.207-252. See Carolyn Marvin and Mark Winther, "Computer-Ease:A Twentieth- Century Literacy

Emergent," Journal of Communication 33 (Winter 1983),pp. 92-109, for a provocative consideration of the epistemological issues raised by the widespread application of computers in schools, homes and the workplace.

* See James Carey and John Quirk, "The Mythos of the Electronic Revolution," American Scholar 39 (Spring 1970).pp.221-222. The Question of the impact of electrical science and technology on modern civilization is a topic that has only recently begun to be explored, most notably by Thomas P. Hughes' Networks of Power:Electrification in Western Society,1880-1930 (Baltimore:Johns Hopkins University Press,1983), p.2, which urges historians to treat electric power systems as "Cultural artifacts...which embody the physical, intellectual, and symbolic resources of the society that constructs them. Other efforts toward what might be termed a cultural history of electricity include Neil Harris,"Utopian Fiction and its Discontents," in Uprooted Americans:Essays to Honor Oscar Handlin,R.L. Bushman et al. eds; (Boston:Little, Brown, and Co.,1979),pp.221-226; Daniel Czitrom, Media and the American Mind:From Morse to McLuhan (Chapel Hill:University of North Carolina Press,1982),pp. 19-21.176-178; Bert Bender, "Let There Be (Electric) Light! The Image of Electricity in American Writing," Arizona Quarterly 34 (I,1978),pp. 55-70. The pervasiveness of the "mythos of the electronic revolution" can be seen in works ranging from Lewis Mumford's treatment of electricity as signalling the end of "paleotechnic" industrial culture in his Technics and Civilization(New York:Harcourt, Brace, and World, Inc., 1934),PP. 255-256;to Marshall McLuhan's messianic celebration of electric technology in Understanding Media:The Extensions of Man (New York:McGraw-Hill,1964),p.64;through Christopher Evans' announcement of, in regard to computers, The Micro Millennium (New York:Viking Press,1979);and in attempts by the nuclear power industry, in the wake of the accidents at Three Mile Island and Chernobyl, to launch a "second nuclear era," by lobbying Congress for legislation to amend the Atomic Energy Act of 1954 and loosen licensing restrictions, accelerate construction of new plants via advance site approval, and secure Nuclear Regulatory Commission approval for a new "safe" light-water reactor design anticipated to go on-line by 1990. Coupled with that effort, according to internal Department of Energy documents, are plans by nuclear industry representatives to launch, in cooperation with the government, a public information campaign to help secure those objectives. See Richard Rudolph and Scott Ridley,Power Struggle:The Hundred-Year War over Electricity(New York:Harper and Row,1986),pp.239-240, citing "Strategic Plan for the Civilian Reactor Development Program," draft, U.S. Department of Energy, October 25, 1985; and "Report of Civilian Nuclear Power Subpanel 3;Institutional Challenges," Department of Energy,January 30, 1986.

[9] See Carey and Quirk,"The Mythos of the Electronic Revolution," Part II, American Scholar (Summer 1970),pp.422-424. Two attempts to follow Carey and Quirk's lead include Carolyn Marvin, When Old Technologies Were New(New York:Oxford University Press, 1988), an analysis of public reaction to the incandescent electric light and telephone, which notes(p.4) that "the early history of electric media is less the evolution of technological efficiencies in communication than a series of arenas for negotiating issues crucial to the conduct of social life; among them, who is inside and outside, who may speak, who may not, and who has authority and may be believed; and Marike Finlay Powermatics:A Discursive Critique of New Communications Technology(London and New York:Routledge and Kegan Paul,1987)which acknowledges its debt to Carey and Quirk's provocative essay(p.8)and stresses that:"The way in which society receives new communications technology, the social impact, must be perceived in and through the ways in which society talks about the social impact of new communications technology; this talk is the trace of social impact."

[10] The business journal Forbes in 1925 called the electrical field the "Most Highly Organized Industry in the U.S." See Forbes, February 15, 1925,p.619. On the organizational structure of the National Electric Light Association, the utilities' trade organization, see U.S. Federal Trade Commission, Utility Corporations (Senate Document 92, 70th Congress, 1st session, 1928) Part 71-A,(Washington, D.C.:United States Government Printing Office,1934),pp. 23-25. NELA's membership included manufacturer's, contractors, dealers, and jobbers. See Utility Corporations,Part 71-A.p.26.

[11] That approach derives from its classic proponents, Henry Nash Smith's Virgin Land (Cambridge:Harvard University press,1950); and Leo Marx's The Machine in the Garden:Technology and the Pastoral Ideal in America (New York:Oxford University Press, 1964,pp.3-10.

[12] Herbert Gans, Popular Culture and High Culture:An Analysis and Evaluation of Popular Taste (New York:Basic Books,1974),p.12.On the methodological shortcomings of American studies see Bruce Kuklick, "Myth and Symbol in American Studies," American Quarterly 24(October 1972),pp.444-445

[13] On using mass cultural artifacts such as news to recover mass-mediated social realities in the past, see James Carey,"The Problem of Journalism History,! (Spring 1974),pp.3-27;Catherine L. Covert,"Jumbled, Disparate and Trivial:Problems in the Use of Newspapers as Historical Evidence,"The Maryland Historian,12, (Spring 1981),p.47,55;Todd Gitlin, The Whole World is Watching:mass media in the making and unmaking of the new left. (Berkeley:University of California Press,1980),pp.7-16;Dan Schiller, objectivity and the News: The Public and the Rise of

Commercial Journalism (Philadelphia:University of Pennsylvania Press, 1981),pp.1-7; See also James Curran,"The Press as an Agency of Social Control," in Boyce, Curran and Wingate, eds., Newspaper History: From the 17th Century to the Present Day (Beverly Hills:Sage Publications, 1978),pp.51-75.

[14] Roland Marchand,Advertising the American Dream:Making Way for Modernity,1920-1940 (Berkeley:University of California Press, 1985),pp.xx-xxi. Marchand emphasizes the role of advertisements in "the shaping of a 'community of discourse,'an integrative common language shared by an otherwise diverse audience."

[15] On the business literature as a source for reconstructing the ideology of business leaders see Francis X. Sutton, et al.; The American Business Creed (Cambridge:Harvard University Press,1956);p.vii; and T.J. Jackson Lears,"Some Versions of Fantasy:Toward a Cultural History of American Advertising,1880-1930," Prospects 9 (1984),p.350, which emphasizes that "national advertising was not merely part of a diffuse popular culture; it was created by specific groups with needs and interests shaped by particular historical circumstances." On the importance of linking "managerial imperatives" with the content of mass cultural artifacts see David P. Nord, "An Economic Perspective on Formula in Popular Culture," Journal Of American Culture 3 (Spring 1980),pp.17-28; and James L. Baughman, "Television in the Golden Age: An Entrepreneurial Experiment," The Historian 47 (February 1985),pp. 175-195.

[16] Stuart Ewen's Captains of Consciousness:Advertising and the Social Roots of the Consumer Culture (New York:McGraw-Hill,1976), despite its mechanistic notions of manipulation, remains a valuable guide to the provocative insights that can be gleaned from a close reading of the advertising trade literature.

[17] U.S.Bureau of the Census, Historical Statistics of the United States,Colonial Times to 1957, (Washington, D.C.:GPO,1960),p.510;Charles Keller,The Power Situation During the War, War Department Document No. 1039 (Washington, D.C.:GPO 1921),pp.1-10. On the need to boost electrical consumption because of the war-time interconnections see I.W.Alexander,"Publicity and the Power Company," Journal of Electricity, December 15,1919,pp.542-543. For a map of American homes wired for electricity, printed to demonstrate the existence of the latent electrical market, see Electrical Merchandising December 1920,p.1. The publication's preface to the same number suggested that "...the richest population in the world--waits outside our places of business to be supplied with its electrical needs." The utilities' public policy agenda is succinctly summarized in Utility Corporations, Exhibit 391, Exhibits Part 2,p.355

[18] On the fusion of industrial psychology, scientific management, economic theory, and social science research techniques which signalled the emergence of an integrated body of marketing thought during the first quarter of the twentieth century see Robert Bartels,The History of Marketing Thought (Columbus,Ohio:Grid,Inc.,1976).Most historical research and writing about "marketing" has focused on the development of modern advertising. See Ronald Savitt, "Historical Research in Marketing," Journal of Marketing 44 (Fall 1980),pp.52-58. On the influence of the new psychology on advertising theory and practice see David P. Kuna, "The Concept of Suggestion in the Early History of Advertising Psychology," Journal of the History of the Behavioral Sciences 12 (1976), pp. 347-353;Michael A. McMahon, "An American Courtship:Psychologists and Advertising Theory in the Progressive Era," American Studies 13 (Fall 1972),pp.5-19; Kerry Buckley, "The Selling of a Psychologist:John Broadus Watson and the Application of Behavioral Techniques to Advertising," Journal of the History of the Behavioral Sciences 18 (July 1982),pp.207-219; and John C. Burnham, "The New Psychology:From Narcissism too Social Control," in Change and Continuity in Twentieth Century America:The 1920s, John Braeman, Robert H. Bremner, and David Brody eds.(Columbus:Ohio State University Press, 1968. See T.J. Jackson Lears, "Some Versions of Fantasy,",pp.331-335, for an insightful analysis linking the development of persuasive advertising with a marketing orientation. Richard Tedlow, Keeping the Corporate Image:Public Relations and Business,1900-1950 (Greenwich, Conn.:JAI Press,1979),pp.xiii-xiv emphasizes how business leaders sought new ways to market ideas in addition to goods and services. Martin N. Olasky,"The Development of Corporate Public Relations, 1850-1930," Journalism Monographs 102 (April 1987),p.1., uses the example of the telephone and utility industries' public relations practices to illustrate Tedlow's assertions,but does not follow the cooperative activities of the different branches of the electric industry,the importance of which has been emphasized by Leonard L. Pearlin and Morris Rosenberg's "Propaganda Techniques In Institutional Advertising," Public Opinion Quarterly 16 (Spring 1952),pp.5-26;and George D.Blackwood,"The Advertising of Ideas," Labor and Nation 6 (Fall 1950),pp.25-27.

[19] "Checking Up on the Electrical Co-operative Campaign," Electrical Merchandising, June 1923,p.3396; and "Services Offered by Industry Organizations," Electrical Merchandising, February 1928, p. 131.

[20] See "Selling the Electrical Idea to Self and Public," Electrical Review, June 25, 1921,pp.1016-1019; and "Other Lines Help to 'Sell the Electrical Idea'," Electrical Merchandising, Pictorial,(May 1925). On the importance of advertising and public relations linking electrical science and technology with progress see S.M.Kennedy, Winning the Public (New York:McGraw-Hill,1921),pp.63-73.

[21] Ernest Greenwood, Aladdin,U.S.A (New York:Harper and Brothers,1928),pp.1-4,7-8.

20 Utility Corporations,Report No. 1,pp.25-26;Report no. 3,p.24; Exhibits 718-1434, Exhibit No. 757,p.139.The FTC investigations prompted a number of popular books about the utility's public relations and advertising in the 1920s. Of these, Ernest Gruening's The Public Pays:A Study of Power Propaganda (New York:Vanguard,1931) remains the best account. The best scholarly treatments are Alan Raucher's summary in his Public Relations and Business,1900-1929 (Baltimore:Johns Hopkins University Press,1968),pp.80-91; and James D. Wilkes,"Power and Pedagogy:The National Electric Light Association and Public Education,1919-1928," Ph. D. dissertation, University of Tennessee,1973; which focuses on the activities of the NELA in public schools, technical schools, colleges, and universities.

[23] On the controversy over Muscle Shoals see Norman Wengert,"Antecedents of TVA:The Legislative History of Muscle Shoals," Agricultural History 26 (October 1952),pp.141-147;Preston J. Hubbard, Origins of the TVA:The Muscle Shoals Controversy,1920-1932 (Nashville:Vanderbilt University press,1961); and Thomas K. McGraw,TVA and the Power Fight,1933-1939 (New York:J.P. Lippincott,1971),pp.1-25. Philip J. Fungiello,The New Deal and the Electric Utility Industry,1933-1941 (Pittsburgh:University of Pittsburgh Press,1973), remains the best account of the legislative wrangling that resulted in New Deal utility reform measures.

[24] See Utility Corporations,Part 71-A,pp.37-40.The fact of the FTC investigations and the success of the progressive bloc in Congress that launched them demonstrates the resiliency of the legacy of the reform impulse of the Roosevelt and Wilson administrations which had been derailed by the outbreak of war in Europe in 1913 and rendered insignificant by the post-war economic boom. On how the debate over electric power policy in the 1920s reflected broader currents of dissatisfaction beneath the veneer of prosperity see George Soule,Prosperity Decade,From War to Depression:1917-1929 (New York:Harper and Row,1947),pp.131-133; and John D. Hicks,Republican Ascendancy,1921-1937 (New York:Harper and Row,1960),pp.63-64.On how the secondary effects of war-time mobilization manifested themselves through the decade in the increasing standardization of techniques and products and a growing emphasis on industrial cooperation through trade associations, marketing, and scientific management see Ellis W. Hawley,The Great War and the Search For a Modern Order:A History of the American People and Their Institutions:1917-1933(New York:St. Martin's Press,1979).

[25] The private utility industry's campaign against the Public Utility Holding Company Act is discussed in Fungiello,The New Deal and the Electric Utility Industry,pp.98-120. Roosevelt, as

governor of New York, had supported the creation of that states' Power Authority in 1931, which was authorized to develop and market power from state-owned generators on the St. Lawrence River. See Frank Freidel,Franklin D. Roosevelt as Governor of New York (New York:Columbia University Press,1955),pp.43-46. On the creation of the Rural Electrification Administration in 1935, and the rural electrical cooperatives, see D. Clayton Brown,Electricity for Rural America:The Fight for REA(Westport,Conn.:Greenwood Press,1980).

[26] Utility Corporations, Pt. 71-A,p.391,14, and 16.

[27] See "Publicity Campaign for the Electrical Industry," Electrical Review, October 23 1920,pp.652-653; and the text of a NELA memo distributed as a pamphlet to its member utility executives announcing the campaign, and the importance of favorable press relations to its success. The pamphlet, "The Press, the Public, and the Electric Light and Power Industry," appears in its entirety in Utility Corp., Exhibit 42, Exs. Pt. 1,p.367. On the organizational structure and operations of the state utility information committees see Utility Corp. Pt. 71-A,pp.61-68. Appendix 2 of that volume,pp.403-404, lists the previous newspaper, advertising, and public relations affiliations of the state public utility information committee directors.

[28] For the complete text of NELA official George Oxley's address to the Texas committee see Utility Corp.,Exhibit 2325, Exs. Pt. 4,p.593; and for the New England committee's report on its newspaper work see Utility Corp., Pt. 2,pp.168-169,172; and Exhibit 688, Exs. Pt. 2,p.744. A chart showing representative examples of amounts of column inches of news and editorials favorable to the utilities, as measured by, and reported to the NELA by its state committees, is in Utility Corp., Pt. 71-A, Appendix 3,pp.406-407.

[29] Utility Corp. Exhibit 2332, Exs. Pt. 4,pp.635-658; and Exhibit 1325, Exs. Pt. 3.pp.1120-1124.

[30] See Utility Corp., Pt. 2,p.176. See also Pt. 71-A,pp.71-77, for discussion of the state committees cooperation with local affiliates in supplying them with ad copy and art with blank spaces in which individual firm's names, logos, and trademarks could be inserted.

[31] On the Harvard business school's case-study of Boston Edison see Utility Corp., Exhibit 909, Exs. Pt. 3,pp.387-389. Clapp's report to the 1927 annual convention of the Public Utilities Advertising Association is in Utility Corp., Exhibits 80 and 626, Exs. Pt. 2,p.481,661.

[32] See Utility Corp.,Pt. 71-A,pp.81-82. On the Texas bureau's banquet, and the full text of the letter cited, see Exhibit 2187, Exs. Pt. 4,p.536; and Exhibit 2191, Exs. Pt. 4,p.536. See Exhibit 569, Exs. Pt. 2,p.625, for the Rocky Mountain Committee's report to the National Conference of Information Committees.

[33] For an overview of the newspaper services provided by E. Hofer's and Sons, along with the activities of other similar organizations such as the Utilities Publication Co.; Darnell's Newspaper Service, Florence Ala.; and Dixie Magazine, Little Rock, Ark., see Utility Corp., Pt. 71-A,pp.92-110. The complete text of the correspondence cited is in Exhibit 3858, Exs. Pt. 7-9,p.300.

[34]
34 A summary of material printed in rural weeklies and dailies receiving the Hofer services is in Utility Corp., Exhibit 3848, Exs. Pts. 7-9,p.300.

[35] See "Report of the Newspaper Advertising Campaigns Division, Advertising and Publicity Bureau," The NELA Bulletin 7 (August 1920),p.544,558; "Electrical Cooperative Advertising Campaign," Journal of Electricity 44 (February 15, 1920),pp.167-168; "S.E.D. Reviews Year's Work and Discusses Plans," Electrical World 80 (December 9, 1922),p. 1287; and John J. Caddigan, "The Leagues in Action," Electrical Merchandising 38 (October 1927),p.98,99, and 130.

[36] See Washington Post, November 6, 1927,pp.F-7,F-8. See also "The Efficient Housewife," Seattle Daily News, December 8, 1919,p.21; "Modern Homes are Electrically Equipped. Is Yours?' Cleveland Plain Dealer, January 22, 1920,p.12; and "Electrical Appliances Necessary Comforts in Homes," San Francisco Chronicle, September 5, 1930,Society Section,p.6.

[37] See Utility Corp., Exhibit 4137, Exs. Pts. 10-16,p.256; and F.W. Parsons, "Electric Energy for Industry," Saturday Evening Post, October 9, 1920,p.37-38,54.

[38] Chester T. Crowell, "Nine Slaves for Each Citizen," Saturday Evening Post, November 6, 1926,p.10-11,74,76.

[39] See Utility Corp., Exhibit 1038, Ex. Pt. 3,p.766.

[40] See Utility Corp., Pt. 61.p.79. See also articles by Society for Electrical Development staffer Grace T. Hadley, printed in the following publications with no attribution of her affiliation with the Society: "Electricity in the Home," House Beautiful, May, 1921,pp.408-410; "Electrify Every Room," Delineator, May 1920,p.74; and "Iceless Refrigerators that make ice for you,"

Ladies Home Journal, August 1919,p.72.

[41] J. C. McQuiston, "Electricity's Work For Humanity, The Part it Played in the War," Forum, Sept. 1919),p.334; and Charles P. Steinmetz, Harper's Monthly, Jan. 1922,pp.226-227.

[42] See "Manufacturer's Co-operate to Build Good Will for Electric Utilities," Electrical World, March 5, 1921, p.550; U.S., Federal Trade Commission, The Electric Power Industry:Supply of Electrical Equipment and Competitive Conditions, Sen. Doc. No. 46, 70th Congress, 1st session (Washington, D.C.:GPO,1928),p.252; and "Publicity Campaign for the Electrical Industry," Electrical Review, October 23, 1920,p.654.

[43] Saturday Evening Post, February 26, 1921,p.67,Appendix:Figure 1; and Collier's National Weekly, April 9, 1921,p.3, Appendix:Figure 2.

[44] See "Manufacturers Co-operate to Build Good Will for Electric Utilities," Electrical World, March 5, 1921,p.550; and Saturday Evening Post,June 11, 1921,p-.102, Appendix:Figure 3.

[45] See "A Campaign to Electrify General Advertising in the Popular Magazines," Electrical Merchandising, May 1920,p.260; and "Electrical 'Atmosphere' in Advertising," NELA Bulletin, April 1920,pp.160-163. To illustrate the concept the Bulletin showed two soap ads from the Ladies Home Journal picturing, respectively, a bar of Proctor and Gamble's "Naphtha" laundry soap next to, in the first ad, a vacuum cleaner, and in the second, an electric light bulb.

[46] See Saturday Evening Post, January 3, 1921,p.172, Appendix:Figure 4; Post, June 5, 1926,p.166,Appendix:Figure 5; and Post, January 31, 1920,p.103, Appendix:Figure 6.

[47] See "Safeguarding Electricity's Good Name," Electrical Merchandising, Sept. 1920,pp.128-129; and "Safeguarding the Good Name of Electricity," Current Opinion, Dec. 1920,p.875.

[48] James M. Wakeman, "Education of the Public as Conducted by the Society for Electrical Development," address at the National Electric Light Association Pasadena Convention, May 1920, reprinted in the NELA Bulletin,Oct. 1920,pp.683-684.

[49] See NELA Bulletin, Oct. 1920,p.551; Gruening,The Public Pays,p.226; and Supply of Electrical Equipment and Competitive Conditions, Sen. Doc. No. 46, 70th Congress,p.242.

[50] See John W. Spaulding, "Radio Becomes an Advertising Medium," Journal of Broadcasting 8 (Winter 1963-1964),pp.31-44; and "Electricity in the Home," Electrical Merchandising,August

1922,pp.68-69; and "Radio Broadcasting," Utility Corp., Pt. 71-A,pp.299-301.

[51] Utility Corp., Exhibit 4127, Exs. Pts. 10-16,p.124.

[52] The text of the Society's radio address was reprinted in Electrical Merchandising, August 1922,pp.68-70. For Arkwright's remarks,along with the press release announcing his talk, see Utility Corp., Pt. 28, Exhibit 4775,pp.384-386.

[53] A summary of the public speaking activities of NELA representatives, state committee officials, and local utility managers is in Utility Corp., Pt. 71-A,pp.286-298. See also "Telling the Public-Utility Story--Notes for Speakers," prepared by the Pennsylvania Public Service Information Committee,1923,in Utility Corp., Exhibit 1233, Exs. Pt. 3,pp.969-973.

[54] On Barton's importance as an advertising leader and business spokesman see Leo P. Ribuffo, "Jesus Christ as Business Statesman:Bruce Barton and the Selling of Corporate Capitalism," American Quarterly 33 (Summer 1981),pp.206-231. On Barton's work for General Electric see David E. Nye, Image Worlds:Corporate Identities at General Electric,1890-1930 (Cambridge:MIT Press, 1985),p.24. On the distribution of the Barton "envelope stuffers" see Utility Corp., Pt. 71-A,p.118. See also Exhibit 1016, Exs. Pt. 3,pp.637-638, for a chart giving titles and circulation of more than 20 million pamphlets, booklets, bulletins, and leaflets the NELA sent to newspapers, magazines, schools, colleges, libraries, churches, and civic organizations.

[55] On the utility industry's efforts to shape the electrical education of the nation's public school and college students, see James David Wilkes,"Power and Pedagogy:The National Electric Light Association and Public Education,1919-1928," Ph.D. diss;p. University of Tennessee,1973; and Utility Corp., Pt. 71-A,pp.139-221. See also Appendix 12 of that volume for a compilation of payments made by utility trade associations to educational institutions and educators.

[56] The Society for Electrical Development adopted "Do it Electrically!" as its slogan in 1913. See "Society for Electrical Development," Electrical Review and Western Electrician, March 15, 1913,p.,568-570. On the educative potential of electrical exhibitions see Arthur Williams, "The Significance of Electrical Shows," Electrical World, November 3,1923,pp.916-917. See also "Palace of Electricity at annual California Industries Exposition," Journal of Electricity January 1, 1924,pp.24-25; and "Birmingham's Electrical Show a Big Success," Electrical World, April 3, 1926,p.728. For similar efforts see "Detroit Co-operates to Exhibit Appliances," Electrical Merchandising, April 1927,p.111; " ' Teaming It' at Louisville,Ky.," Electrical Merchandising, Sept. 1920,p.125; and

"Salt Lake is Scene of Large Electrical Exposition," Journal of Electricity and Western Electrician, November 1, 1922,pp.336-337. Beginning in 1907 New York held an annual Electrical and Industrial Exposition which served as a model for other cities nationwide. See "Three-Fold role of N.Y.'s Annual Electrical Show," Electrical World, Oct 25,1924,pp.901-903.

[57] See Robert Sibley, "I Want an Electrical Home," Electrical Merchandising, March 1921,p.115; "A Survey of Seventeen Successful 'Home Electric' Exhibits," Electrical Merchandising August 1922,pp.23-24; and "Selling the ELectrical Home in San Francisco," Journal of Electricity, August 1920,p.160.

[58] On the art and practice of setting effective window displays see How to Sell Electrical Labor-Saving Appliances (New York:McGraw-Hill,1918),pp.4-5; H.B. Rogers, "The Desire Store," Journal of ELectricity, November 1, 1920,p.420; and C.M. Luckiesh, "Lighting the Show Window--Color Opportunities for the Merchant," Electrical Merchandising, Feb. 1923,pp.3120-3121. For a photograph of the Toledo shop window see Electrical Merchandising, Feb. 1923,p.3123; and for the Springfield display, Electrical Merchandising, July 1920,p.315, Appendix:Figure 7.

[59] See "Training the Men Who Ring the Bells," Electrical Merchandising, Jan. 1923,pp.3040-3041;A. W. Childs, "The Value of Appliance Solicitors," Journal of Electricity, April 15, 1920,p.380; and E.A. Edkins,"How We Sell Clothes Washers in Chicago by the Demonstration Method," Electrical Merchandising, 'Pictorial', Feb. 1923. See also The Electrical Solicitor's Handbook (New York:The National Electric Light Association, 1913; and O. R. Hogue, "House-to-House Appliance Selling," Electrical World, June 3, 1922,pp.1128-1129.

[60] For Westinghouse advertising director J. C. McQuiston's remarks on the objectives of electrical advertising see Electrical Merchandising, March 1929, p.11. On the growth and expansion of the electrical industry in the 1920s see Andrew W. Cruse,"The Electrical Goods Industries," in Technological Trends and National Policy:Including the Societal Implications of New Inventions, compiled by the U. S. National Resources Committee, Subcommittee on Technology (Washington,D.C., GPO,1937),pp.314-328; which presents an overview of the impact of electrical advances in science, industry, business, the home and medicine. See also Recent Social Trends in the United States, Report of the President's Research Committee on Social Trends, One Volume Edition (New York:McGraw-Hill,1933):668; Recent Economic Changes of in the United States:Report of the Committee on Recent Economic Changes of the President's Conference on Unemployment (New York:McGraw-Hill,1929):Volume I,pp. 93-95;56-58; and Utility Corp., Pt. 71-A,p. 60. Stuart Chase's estimates of the diffusion of household appliances appear in his Prosperity:Fact or Myth (New York,1929),p.62. See also Amy Hewes, "Electrical Appliances

in the Home," Social Forces 9 (December 1930),pp.235-243.

[61] See David Schap, Municipal Ownership in the Electric Utility Industry:A Centennial View (New York:Praeger Publishers,1986),11.

[62] San Francisco Chronicle, September 5, 1930, Society Section,p.6.

[63] See Ruth Schwartz Cowan, More Work for Mother:The Ironies of Household Technology from the Iron Hearth to the Microwave (New York:Basic Books,1983). Electrical leaders repeatedly emphasized the necessity of "training women in the efficient use of household appliances." See Millicent L. Sears, "Educating Women for the Electrical Home," Journal of Electricity, August 15, 1920,pp.170-171; and on the role of the so-called housekeeping institutes in electrical education see Florence R. Clauss, "Missionaries," Electrical Merchandising, March 1929,pp.82-85. Other features addressing women and electricity include George W. Alder, "A.B.C. of Electricity for the Housekeeper," GOod Housekeeping, January 1924,p.78,164; C.H. Zillessen, "Electric House," Ladies Home Journal, Feb. 1920,pp.163-166; and N.B. Nichols, "My Adventures with Electricity," Women's Home Companion, Oct. 1922,pp.50-52.

[64] T.J. Jackson Lears,"Some Versions of Fantasy," pp.351-356. See also Varda Leymore Langholz The Hidden Myth (London:Heinemann,1975),p.156, which argues, following Claude Levi Strauss' research into how myths work in primitive cultures, that advertising, like primitive myths, buttresses prevalent modes of behavior and performs as a tension-relieving mechanism reconciling the contradictions of modern industrial life.

[65] On the large-scale production of ideology in commercial media see Hans Magnus Enzensberger,The Consciousness Industry (New York:Seabury Press,1974),p. 10; Paul M. Hirsh,"Production and Distribution Roles Among Cultural Organizations," Social Forces 45 ((2,1978),pp.315-330; and Gaye Tuchman, "Consciousness Industries and the Production of Culture," Journal of Communication 33 (Summer 1983),pp. 330-341.

[66] "Henry Ford's Message to Electrical Men," Electrical Merchandising 42 (August 1929),p.71.

[67] See Imagining Tomorrow:History, Technology, and the American Future Joseph J. Corn, ed.,(Cambridge,Mass.:The MIT Press,1986,p. 2,pp.226-227.On the role of public exhibitions and consumer advertising in attaching social meanings to the products of complex industrial processes and high technology see also John Cawelti, "America on Display:The World's Fairs of 1876,1893,1933," in The Age of Industrialism in America:Essays in Social Structure and Cultural Values, Frederic C. Jaher,ed., (New York:The Free Press,1968),pp.317-320; and Michael Smith, "Selling

the Moon:The U.S. Manned Space Program and the Triumph of Commodity Scientism," in The Culture of Consumption:Critical Essays in American History,1880-1890, T.J. Jackson Lears and R.W. Fox eds.,(New York:Pantheon Books,1983),pp.183-188.

SERVICE TO YOU

Peering into the unknown, venturing constantly through untrodden fields, achieving seeming impossibilities, Electrical Research is ever at your service. There are evidences of it to be observed almost every hour of your day.

AT the touch of a button, homes are flooded with light. Innumerable services are performed for man's personal comfort and convenience. Communities are made brighter and safer by night. Industrial machinery everywhere is energized to produce the world's goods with far greater speed, simplicity and economy.

Time and distance are bridged by wire and wireless. The science of medicine is made more potent by the marvelous X-ray and other electrical apparatus. New materials, new methods, new products and new uses for old ones are conceived and perfected.

It is Electrical Research which performs all this service for you and all mankind—the patient, intelligent, self-sacrificing toil of scientists, physicists and engineers in laboratory and factory.

Bringing You This Service

BUT bending electricity to man's will would be futile without the electric light and power companies to bring the fruits of Research to the world's finger tips. Through them, men benefit by a Research which, in 25 years, has made incandescent lamps four times better, power transmission easier now over hundreds of miles than it was then for ten miles, and generating machinery capable of producing a hundred times as much power in a given space.

It is through the investment of capital in electric light and power companies that electricity can be generated on a vast scale for economy's sake. It is their capital, their engineering and maintenance service, their business organization which distribute current through constantly multiplying millions of wires. These companies are vital to the world's use of electricity.

Where Research is Personified

YOUR contact with these public service companies may have been so impersonal that you have failed to realize the full service rendered you. You only press a switch. You expect results with no thought of the maze of wire and cable, of buildings filled with measuring, protecting, control and distributing apparatus, of heavy transmission lines leading back to immense power stations, all personifying Research.

This mechanical legion does its duty dependably for you under the eyes and hands of men whose watchfulness, integrity and loyalty make their public service a true service to the public.

They are dealing in a necessity—these electric light and power companies—a necessity for which the demand is constantly swelling. Their business is, therefore, on a firm foundation. In order that they may deliver to you at the end of a wire the fullest benefit of Research, they need the sympathetic interest of a consuming public which views fair-mindedly the operating and financing problems of this service.

Research, both in its purely scientific and in its embodied mechanical form, must go on expanding and enriching its service to you.

QE-411

GENERAL ELECTRIC COMPANY

Figure 1

Will your town stop
or move ahead?

This is the simple fact. The United States needs more electricity to run its mills and mines, to light its streets and houses, to lighten the labor of the home, to increase production and to lower costs.

THERE are 5,000,000 homes within reach of electricity waiting to be wired. The use of electricity for washing, ironing, sweeping and cooking has hardly more than begun.

Nearly every electric light and power company knows that it must expand tremendously in the next four years if it is to keep up with the demand. Figures taken from Electrical World indicate that the equipment of these companies will have to be nearly doubled; and that means an additional investment not of millions, but of *approximately 4 billions* of dollars.

We Can Speak Frankly About This, Having No Axe to Grind

ELECTRICAL WORLD is not owned by the electric light and power companies. It is an independent property, one of the eleven journals of service published by the McGraw-Hill Company, Inc., New York. It is in a position to speak frankly both *to* its industry and *for* its industry.

It *has* spoken frankly to the electric light companies for years. It has said: "Give service; give better and better service; take the public into your confidence all along the line."

And what the electric light companies have done is hardly short of miraculous. You seldom stop to think of it. You touch a button and the light goes on, or the motor starts—a light that has been made constantly better and cheaper in the past twenty-five years when everything else was costing so much more; a motor that does the work of a hundred or five hundred men.

The miracle of that light or motor has become a commonplace part of your life; but it *is* a miracle none the less.

The electric light companies have a right to be proud of it; and Electrical World can boast of it, even though the companies do not.

Power Supply—the Key to Progress

AND now ELECTRICAL WORLD turns from its readers to the readers of Collier's: from the men who own and operate the electric lighting companies, to their customers, to *you* and says:

"The time is here when all of us must do well by our electric light and power companies if we want to do well by ourselves.

"Four billions in new capital can come only from the little savings of the many. And the companies must have this new capital or the nation will be stopped in its progress because it has outgrown its power and its lights.

"Take a good look ahead at your city or town. Is it going to move forward swiftly or stumble and halt? The answer lies in the steady growth of your electric light and power company, as much as anywhere else. For no city moves forward *unless it can see clearly* and has *all of the power it can use.*"

ELECTRICAL WORLD

by James H. McGraw

President

McGraw-Hill Company, Inc.

Tenth Avenue at 36th Street

New York City

Collier's Itself Said:

"Our public and our utilities will have to pull together if either is to prosper. They will not prosper separately."

ELECTRICAL WORLD, ELECTRICAL MERCHANDISING and JOURNAL OF ELECTRICITY AND WESTERN INDUSTRY are read by 42,000 men of the electrical industry. OTHER McGraw-Hill publications are: Power, Coal Age, American Machinist, Engineering and Mining Journal, Chemical and Metallurgical Engineering, Electric Railway Journal, Engineering News-Record, and Ingenieria Internacional (Spanish.)

Figure 2

BEST COPY AVAILABLE

The Silent Policeman

PICTURE yourself in dire necessity of the strong arm of the law! You dash out of your house in the night to call a policeman. But, alas, he is nowhere in sight.

That is not always the policeman's fault. He has a good deal of ground to cover, and he may be at the other end of his beat.

But, each night, there is a silent policeman standing at your street corner. There are thousands of them in your city. They are the street lights operated by the big electric light and power company of your community.

Crime cannot exist within the circle of their protecting radiance.

During the war several cities, in their efforts to assist in the saving of coal, ordered the reduction of their street lights. In one great city the Mayor ordered that all such lights, outside of the central business section, should be extinguished at eleven o'clock.

Within an hour after the order was put into effect three murders, a score of hold-ups and innumerable robberies, including the theft of the Mayor's own car from in front of the City Hall, were committed. Before the night was over, the Mayor ordered the street lights turned on again.

It is due to the faith of some 1,450,000 investors in the securities of the electric light and power industry that these silent policemen stand at your street corners.

It is authentically declared that 1,500,000 homes, 500,000 factories, 5,000 churches, 60,000 apartment buildings, 15,000 theatres and 5,000 public schools must be built immediately in this country.

Many of these must be supplied with electric service. New streets will be developed and these streets must be guarded as your street is—with silent policemen. This means that, with public understanding and support, one billion dollars a year will be invested to develop the electric light and power industry during the next four years.

NATIONAL ELECTRIC LIGHT ASSOCIATION

Figure 3

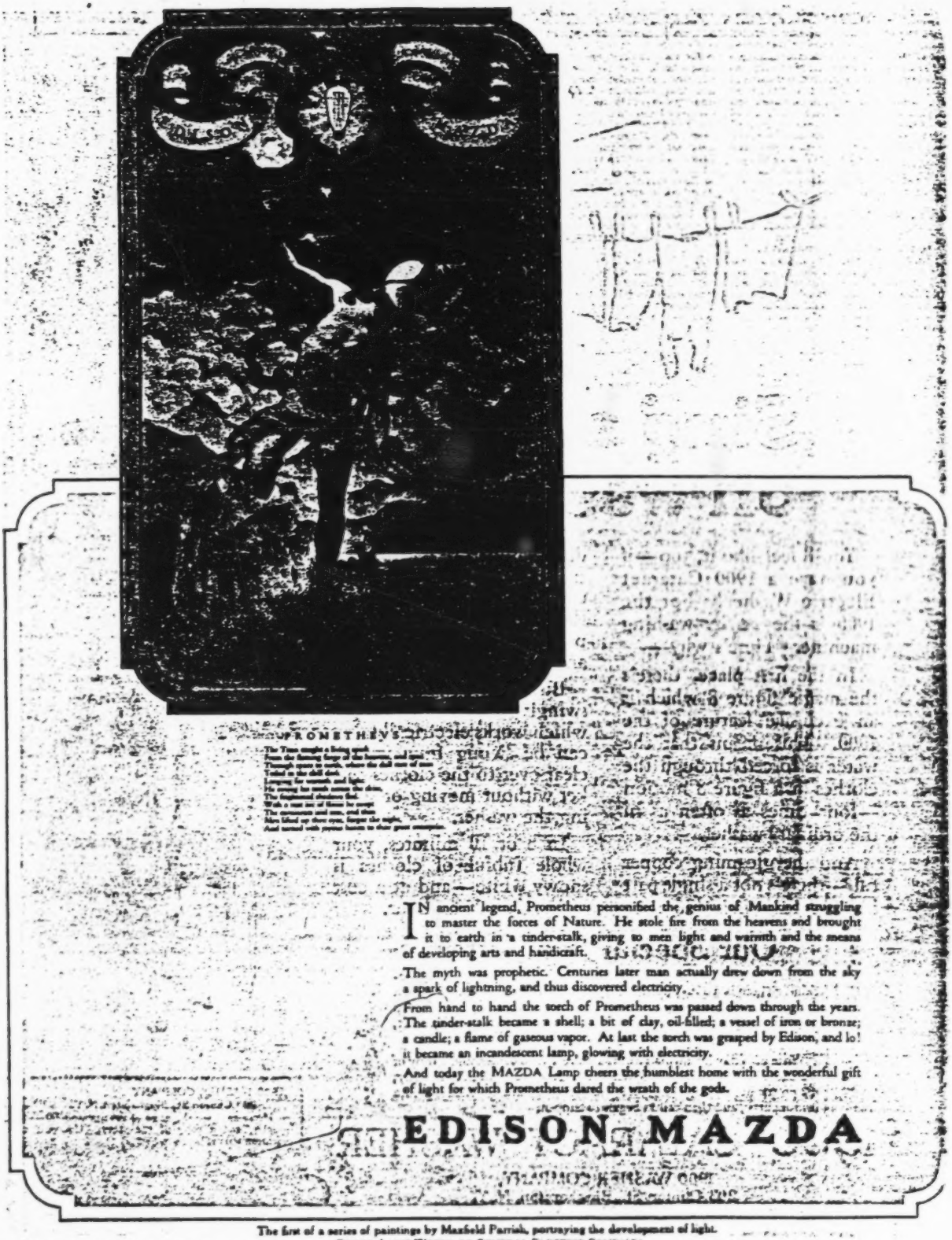
PROMETHEUS
IN ancient legend, Prometheus personified the genius of Mankind struggling to master the forces of Nature. He stole fire from the heavens and brought it to earth in a tinder-stalk, giving to men light and warmth and the means of developing arts and handicraft.
The myth was prophetic. Centuries later man actually drew down from the sky a spark of lightning, and thus discovered electricity.
From hand to hand the torch of Prometheus was passed down through the years. The tinder-stalk became a shell; a bit of clay, oil-filled; a vessel of iron or bronze; a candle; a flame of gaseous vapor. At last the torch was grasped by Edison, and lo! it became an incandescent lamp, glowing with electricity.
And today the MAZDA Lamp cheers the humblest home with the wonderful gift of light for which Prometheus dared the wrath of the gods.
EDISON MAZDA
The first of a series of paintings by Maxfield Parrish, portraying the development of light.
EDISON LAMP WORKS OF GENERAL ELECTRIC COMPANY

Figure 4

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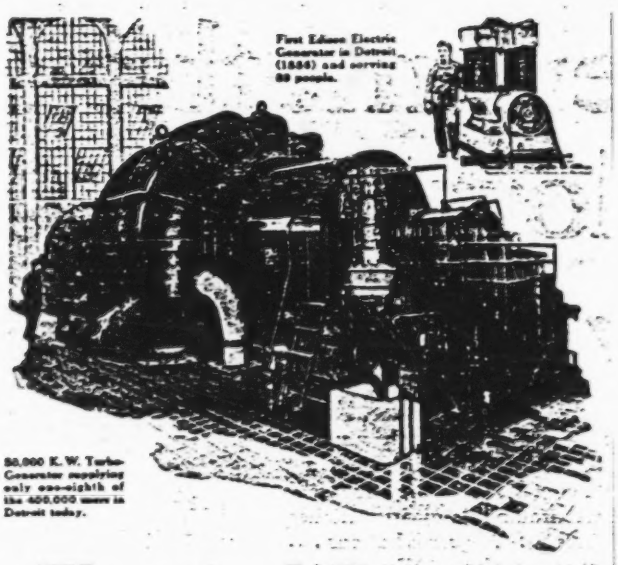

First Edison Electric Generator in Detroit (1886) and serving 80 people.
50,000 K. W. Turbo-Generator supplying only one-eighth of the 400,000 users in Detroit today.

Electrical Energy—

the Mainspring *of* Human Progress

The tremendous expansion of the great electric light and power companies is the natural outgrowth of their contribution to the advancement of civilization, and to the fullness of life.

For many years it has been the privilege of Square D to work with this colossal industry on a basis of mutual confidence, and as the benefits of electricity have become available and safe to more and more people the use of the *pioneer* Safety Switch has increased in proportion until today the undisputed leadership of Square D rests solidly on more than 4,000,000 satisfactory installations.

SQUARE D COMPANY, DETROIT, U.S.A.

FACTORIES AT: DETROIT, MICH., PERU, IND.

BRANCH OFFICES: Boston, Buffalo, Chicago, New York, Pittsburgh, St. Louis, Philadelphia, Cincinnati, Milwaukee, Atlanta, Cleveland, San Francisco, Los Angeles, Syracuse, Kansas City, New Orleans, Baltimore, Columbus, Minneapolis, Indianapolis

SQUARE D COMPANY, CANADA, LTD., WALKERVILLE, ONT.

BRANCH OFFICES: Toronto, Montreal

SQUARE D

Safety Switch

Figure 5

Away goes the washtub

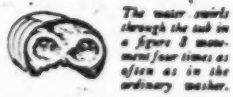
You don't need it when you have a 1900 Cataract Electric Washer, with its magic figure 8 movement! For this magic movement of the 1900 makes it the *perfect* washer.

By means of it, the hot soapy water swishes through your clothes in a figure 8 movement; and *four times* as often as in the ordinary washer.

The swinging, reversible wringer also works electrically and can be swung from washer to rinse water, to blue water, to clothes basket without moving or shifting the washer an inch.

Then there is the roomy copper tub with its planished lining—not a single part in the tub to cause wear and tear on the clothes. Everything from fine underwear and waists to heavy blankets can be successfully washed in the 1900.

It works easily and smoothly, too, and at a cost of less than 2c an hour. In 8 to 10 minutes out come your clothes, spotless and clean.



The water swirls through the tub in a figure 8 movement four times as often as in the ordinary washer.

Comes in 8 and 12 sheet sizes.

Just connect it with the electric light and off it starts.

Our Special Trial Offer

You may prove to yourself that the 1900 is the perfect washing machine. There is a 1900 dealer near you who will gladly demonstrate a 1900 Cataract Washer right in your own home. Then if you wish, you may start paying for it on terms to suit your convenience. Remember, we also have washing machines operated by hand and water power.

Write us today for the name of the nearest 1900 dealer, and a copy of the book, "George Brinton's Wife." It's a story you will enjoy. Molly, his pretty little wife, had troubles of her own until she interrupted a bridge party, and then things began to happen.

1900 CATARACT WASHER

1900 WASHER COMPANY,
203 Clinton St., Binghamton, N. Y.
Canadian Factory and Office, **CANADIAN 1900 WASHER CO., 357 Yonge St., Toronto**

1900 WASHER COMPANY
203 Clinton St., Binghamton, N. Y.

Please send me the name of the nearest 1900 dealer, and a copy of the story "George Brinton's Wife."

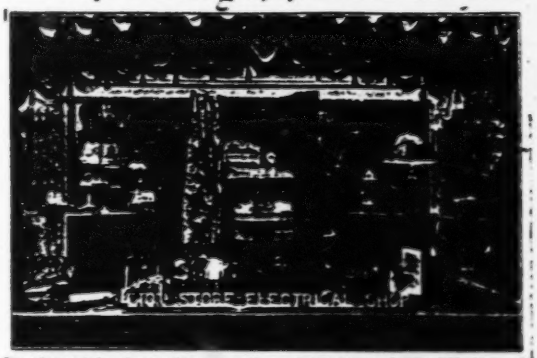
NAME _____

ADDRESS _____

CITY AND STATE _____

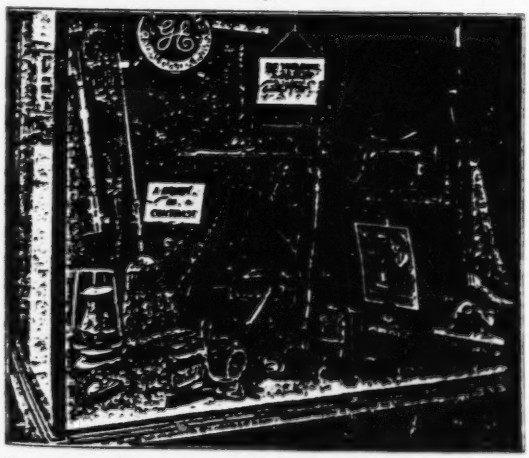
Figure 6

How a Department Store Displays Electrical Conveniences



Lion Dry Goods Co.,Toledo, Ohio

Another Idea for an "Old and New" Display Window



Interstate Electric Co., Springfield, Mass.

Figure 7

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